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WPI Acc No: 1998-076805/199807

New heterocyclic compounds - are specific dopamine D receptor blockers for treating e.g. schizophrenia e.g. 4-piperazinyl ethylamino tetrahydroquinazoline compounds

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Number of Countries: 075 Number of Patents: 003

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 9747601	A1	19971218	WO 97JP1993	A	19970609	199807 B
AU 9729807	A	19980107	AU 9729807	A	19970609	199820
JP 10501435	X	19981208	WO 97JP1993	A	19970609	199908
			JP 98501435	A	19970609	

Priority Applications (No Type Date): JP 96149620 A 19960611

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
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WO 9747601	A1	J	176	C07D-215/46	
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Designated States (National): AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GE GH HU IL IS JP KE KG KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK TJ TM TR TT UA UG US UZ VN YU

Designated States (Regional): AT BE CH DE DK EA ES FI FR GB GH GR IE IT KE LS LU MC MW NL OA PT SD SE SZ UG

AU 9729807	A	C07D-215/46	Based on patent WO 9747601
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JP 10501435	X	C07D-215/46	Based on patent WO 9747601
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Abstract (Basic): WO 9747601 A

Heterocyclic compounds of formula (I), their optical isomers and salts are new: X1-X2-X3 = NCR1N, CR1R2N, NCR1CR2, CR1NCR2 or N-NCR1; R1, R2 = H, alkyl, OH, NH2, arylalkyl, or optionally substituted aryl or heteroaryl; A = 1-4C alkylene substituted by R3; R3 = H, alkyl, OH, alkoxy, amino or alkylamino; Y = O, S, SO, SO2 or NR4; R4 = H, alkyl, aryl, heteroaryl, arylalkyl or acyl; B = 1-4C alkylene substituted by R3a; R3a = H, alkyl, OH, alkoxy, amino or alkylamino; Z = O, S, SO, SO2, NR5, CH(OH), CO or CH2; R5 = H, alkyl or arylalkyl; D = 1-8C alkylene; R = a group of e.g. formulae (i), (ii), (iv), (viii) or (ix); Q-T = CH2N, CH2CH or CH=C; R7 = H or alkyl; R8 = optionally substituted aromatic hydrocarbyl ring or heterocyclyl ring; R9 = H, alkyl, OH, alkoxy, 3-8C cycloalkyl, aryl or heteroaryl; in (ii) when Q-T = CH2N then R9 is not OH or alkoxy; R10 = alkyl, 3-8C cycloalkyl or optionally substituted aryl or heteroaryl; R11 = H, alkyl, 3-8C cycloalkyl or optionally substituted aryl or heteroaryl; R12 = alkyl, 3-8C cycloalkyl or optionally substituted aryl or heteroaryl; W = O, S or NR13; R13 = H, alkyl or optionally substituted aryl or heteroaryl; R14 = H, alkyl, alkoxy, CF3, alkylthio, alkylsulphinyl, alkylamino, OH, halo, acyl or NO2; Ar = aromatic or heteroaromatic ring.

USE - (I) are potent dopamine D4 receptor blockers and have high affinity for muscarine M1, serotonin-2 (5-HT2) and adrenalin alpha 1 and alpha 2 receptors. (I) are thus antipsychotic agents, useful for treating schizophrenia including positive symptoms such as hallucination and delusion and negative symptoms such as emotional torpidity, abulia and autism.

ADVANTAGE - (I) are selective towards D4 receptors and have reduced side effects such as extrapyramida symptoms and abnormal internal secretion seen with conventional antipsychotic agents.

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Derwent Class: B02

International Patent Class (Main): C07D-215/46

International Patent Class (Additional): A61K-031/47; A61K-031/495;
A61K-031/50; A61K-031/505; C07D-217/14; C07D-217/22; C07D-237/28;
C07D-239/74; C07D-239/86; C07D-239/91; C07D-401/06; C07D-405/12;
C07D-405/14; C07D-471/04; C07D-487/04; C07D-491/044; C07D-491/052;
C07D-495/04